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=> s septicemia 55506 SEPTICEMIA

=> s lipopolysaccharide binding protein 2979 LIPOPOLYSACCHARIDE BINDING PROTEIN

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=> duplicate remove 13 DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n PROCESSING COMPLETED FOR L3 17 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)

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ANSWER 1 OF 17 MEDLINE DUPLICATE 1

ACCESSION NUMBER: 2002634766 MEDLINE

DOCUMENT NUMBER: 22280781 PubMed ID: 12394943

TITLE: Characterization of a myocardial depressant factor in

meningococcal septicemia.

COMMENT: Comment in: Crit Care Med. 2002 Oct;30(10):2379-80 AUTHOR:

Pathan Nazima; Sandiford Colin; Harding Sian E; Levin

Michael

CORPORATE SOURCE: Department of Pediatrics, Imperial College of Science,

Technology and Medicine, London, UK.

SOURCE: CRITICAL CARE MEDICINE, (2002 Oct) 30 (10) 2191-8.

Journal code: 0355501. ISSN: 0090-3493.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 200211

ENTRY DATE: Entered STN: 20021024

Last Updated on STN: 20021213 Entered Medline: 20021107

OBJECTIVE: Identification and characterization of myocardial depressant AB factors present in meningococcal ***septicemia*** . DESIGN: Laboratory investigation of myocardial depression that used isolated cardiac myocytes as an model of cardiac contractile function. SETTING: University hospital and laboratories. PATIENTS: Children with severe meningococcal septic shock requiring intensive care. ANIMALS: Myocytes obtained from adult male Sprague-Dawley rats. INTERVENTIONS: Serum samples obtained from the acute phase of sepsis were evaluated for the presence of myocardial depressant activity. Further characterization of the myocardial depressant factor was undertaken by using cell culture supernatants from whole blood and peripheral blood mononuclear cells that had been exposed to heat-killed meningococci. MEASUREMENTS AND MAIN RESULTS: Myocardial depressant activity was measured by using isolated rat left-ventricular myocytes. Changes in amplitude of contraction and in the speed of contraction and relaxation were determined after cells were exposed to various stimuli. Serum from patients with meningococcal disease had myocardial depressant activity. This activity was also present in whole blood and peripheral blood mononuclear cells exposed to meningococci. Myocardial depressant

activity was found to be heat stable, proteinaceous, and of a melecular weight range of 10-25 kDa. The stivity did not elevate concentions of cyclic guanylic acid. ***Lipopolysaccharide*** - ***binding***

protein augmented the release of myocardial depressant factor by peripheral blood mononuclear cells exposed to meningococci. CONCLUSIONS: Myocardial depression in meningococcal sepsis is mediated in part by circulating myocardial depressant factors. Myocardial depressant factors are also released when whole blood or peripheral blood mononuclear cells of healthy donors are exposed to heat-killed meningococci. Release of the factors appears to be mediated through endotoxin-induced activation of peripheral blood mononuclear cells, since ***lipopolysaccharide*** - ***binding*** ***protein*** augments release in a dose-responsive manner. Partial physicochemical characterization of the factors has been

L4 ANSWER 2 OF 17 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2001044742 EMBASE

TITLE: Endotoxin and adjunctive therapies in gram-negative sepsis.

AUTHOR: Romano M.J.

achieved.

CORPORATE SOURCE: Dr. M.J. Romano, Clinical Pediatrics, Texas Tech Univ.

Health Sci. Center, 3601 4th St, Lubbock, TX 79430, United

States

SOURCE: Seminars in Pediatric Infectious Diseases, (2001) 12/1

(17-23). Refs: 100

ISSN: 1045-1870 CODEN: SPIDFJ

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 007 Pediatrics and Pediatric Surgery

026 Immunology, Serology and Transplantation

037 Drug Literature Index

LANGUAGE: English SUMMARY LANGUAGE: English

Gram-negative infections remain a major cause of morbidity and mortality. The death rate from ***septicemia*** is increasing and now surpasses acquired immunodeficiency syndrome as a cause of death. Initial attempts at adjunctive therapy using monoclonal antibodies directed against the lipid A core of endotoxin (HA-1A, E5) have not provided consistent benefit in large-scale trials. The only other agent targeting endotoxin is bactericidal permeability increasing protein, for which a phase III trial in children with meningococcemia has been completed. Other strategies being developed include modifying the effect of mediators of endotoxin toxicity, including CD14, soluble CD14, and ***lipopolysaccharide*** ***protein*** ; detoxifying endotoxin by binding with ***binding*** polymyxin B; and implementing antagonists of endotoxin or compounds that inhibit the biosynthesis of endotoxin. Copyright .COPYRGT. 2001 by W.B. Saunders Company.

L4 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1998:59315 CAPLUS

DOCUMENT NUMBER: 128:106451

TITLE: Nonoral preparations containing phospholipids, and prevention and treatment of septicemia with them

INVENTOR(S): Kanagi, Yoshiaki; Ono, Yoichi; Mori, Masato; Akiyama,

Tadashi

PATENT ASSIGNEE(S): Nippon Seiyaku K. K., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 10017476 A2 19980120 JP 1996-188173 19960628

PRIORITY APPLN. INFO.: JP 1996-188173 19960628

AB The prepns. for ***septicemia*** contain phospholipids suspended therein, and the phospholipids mobilize lipoproteins when i.v.

administered, thus inactivating endotoxins and/or endotoxin ***lipopolysaccharide*** - ***binding*** ***protein*** complexes
 Septicemia is prevented or treated by i.v. administration of the

preprior. Thus, yolk lecithin was homogenized with an aq. glycerin soln. to give a suspension. Escherich coli LPS was injected to rats of 4th day of 5-day consecutive i.v. administration of the suspension to cause no death of he animals.

L4 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1998:398796 CAPLUS

DOCUMENT NUMBER: 129:53159

TITLE: Flow cytometric analysis of immunoparalysis

AUTHOR(S): Nebe, Carl Thomas

CORPORATE SOURCE: Fak. Klin. Med., Inst. Klin. Chem., Univ. Heidelberg,

Mannheim, D-68135, Germany

SOURCE: Clinical Laboratory (Heidelberg) (1998), 44(6),

441-446

CODEN: CLLAFP

PUBLISHER: Clin Lab Publications

DOCUMENT TYPE: Journal LANGUAGE: English

AB To diagnose immunoparalysis and prognosis of ***septicemia*** , an assay for the detn. of the cell surface d. of HLA-DR expression on monocytes in peripheral blood was standardized and validated. Monocytes were identified by their receptor for the ***lipopolysaccharide*** - ***binding*** ***protein*** CD14, while the expression d. of antigen-presenting mols. on their cell surface was registered via immunofluorescence. Diminished expression of antigen-presenting mols. (major histocompatibility complex class II, human leukocyte antigen-DR) was assocd. with high risk of sepsis and lethal outcome. Fluorescence intensity above 250 channels was normal and values >50 correlated with a poor prognosis.

L4 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1995:982430 CAPLUS

DOCUMENT NUMBER: 124:764

TITLE: Recombinant preparation of polypeptides of human

lipopolysaccharide binding protein and use of the

polypeptides for sepsis treatment

INVENTOR(S): Han, Jiahuai; Ulevitch, Richard J.; Tobias, Peter S.

PATENT ASSIGNEE(S): Scripps Research Institute, USA

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT ASSIGNEE(S):

W: AU, CA, FI, JP, NO

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 5837810 A 19981117 US 1994-215089 19940315
AU 9521868 A1 19951003 AU 1995-21868 19950315
PRIORITY APPLN. INFO.: US 1994-215089 19940315

AB A polypeptide fragment of lipopolysaccharide (LPS)-binding protein (LBP) that inhibit the binding of LPS released by gram-neg. bacteria into the CD14 receptor is provided. A method of ameliorating symptoms of sepsis in a subject by administration of an LBP polypeptide of the invention, or administration of antibody to LBP polypeptide, or anti-idiotype antibody is also disclosed.

L4 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1995:741240 CAPLUS

DOCUMENT NUMBER: 123:141733

TITLE: Monoclonal antibodies immunoreactive with

lipopolysaccharide binding protein (LBP) and methods

WO 1995-US3384

19950315

of their use

INVENTOR(S): Kirkland, Theo; Tobias, Peter; Ulevitch, Richard;

Moriarty, Ann; Leturcq, Didier Scripps Research Institute, USA

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                 KIND DATE
                                   APPLICATION NO. DATE
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    WO 9514039
                  A1
                       19950526
                                    WO 1994-US13199 19941115
       W: AU, CA, JP
       RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    AU 9512095 A1 19950606
                                    AU 1995-12095
                                                   19941115
                       19980519
                                    US 1996-679944
    US 5753504
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                                                   19960715
    US 6232080
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                                    US 1998-81350
                        20010515
                                                   19980519
    US 2001029292
                  A1
                       20011011
                                    US 2001-858279
                                                   20010515
PRIORITY APPLN. INFO.:
                                  US 1993-153364 A 19931116
                                  WO 1994-US13199 W 19941115
                                  US 1996-679944 A3 19960715
                                  US 1998-81350
                                                A3 19980519
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AΒ The present invention concerns a method of treating LBP-mediated LPS-induced myeloid cell activation comprising administering a therapeutically effective amt. of an anti-LBP monoclonal antibody mol. A therapeutic compn. comprising anti-LBP antibody mols. in a pharmaceutically acceptable excipient is also contemplated. LBP-mediated LPS-induced myeloid cell activation may relate to sepsis or gram-neg. bacterial infection. The method may also include antibiotic treatment. In example, anti-LBP monoclonal antibodies were prepd., characterized, and used in inhibiting LBP-mediated cell activation. inhibition included LBP-mediated binding of LPS to CD14, secretion of tumor necrosis factor from myeloid cells, etc.

ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1995:967850 CAPLUS

DOCUMENT NUMBER: 124:75647

TITLE: Activity of lipopolysaccharide-binding

> protein-bactericidal/permeability-increasing protein fusion peptide in an experimental model of Pseudomonas

AUTHOR (S): Opal, Steven M.; Palardy, John E.; Jhung, Jhung W.;

Donsky, Curtis; Romulo, Rodirgo L. C.; Parejo,

Nicholas; Marra, Marian N.

CORPORATE SOURCE: Memorial Hosp. Rhode Island, Brown Univ. Sch. Med.,

Providence, RI, USA

SOURCE: Antimicrobial Agents and Chemotherapy (1995), 39(12),

2813-15

CODEN: AMACCQ; ISSN: 0066-4804 American Society for Microbiology

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

A chimeric protein consisting of the N-terminal domain of lipopolysaccharide-binding protein and the C-terminal domain of bactericidal/permeability-increasing protein demonstrated a dose-dependent survival benefit (P = 0.001) and reduced endotoxin levels (P < 0.01) in neutropenic rats with Pseudomonas aeruginosa sepsis. This lipopolysaccharide-binding protein-bactericidal/permeability-increasing peptide has favorable pharmacokinetics and antiendotoxin properties which may be of value for human sepsis.

ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1996:657645 CAPLUS

DOCUMENT NUMBER: 125:324844

TITLE: Contribution of lipopolysaccharide binding protein

(LBP) in endotoxemic shock in mice

Heumann, Didier; Gallay, Philippe; Le Roy, Didier; Glauser, Michel Pierre AUTHOR(S):

CORPORATE SOURCE: Division Infectious Diseases, Department Medicine,

Lausanne, CHUV-1011, Switz.

SOURCE: Progress in Clinical and Biological Research (1995),

392(Bacterial Endotoxins), 465-471

CODEN: PCBRD2; ISSN: 0361-7742

PUBLISHER: Wiley-Liss DOCUMENT TYPE: Journal LANGUAGE: English

The authors confirmed in vivo the role of LBP suggested by in vitro studies. In vivo, anti-LBP Interference protection against le endotoxemia by one of 2 mechanisms: (1) LBP blockade by pretreatment with anti-LBP IgG allowed protection against a low lipopolysaccharide (LPS) challenge (100 ng); (2) anti-LBP treatment given simultaneously to LPS challenge protected mice independently from the dose used for challenge. Thus, anti-LBP could be a candidate for therapeutic strategies in endotoxemic shock, esp. when considering the fact that LBP is known to bind to a wide range of LPS and to lipid A.

ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:502408 CAPLUS

DOCUMENT NUMBER: 122:263275

TITLE: Induction of lipopolysaccharide-binding protein gene

expression in cultured rat pulmonary artery smooth

muscle cells by interleukin 1.beta.

AUTHOR (S): Wong, Hector R.; Pitt, Bruce R.; Su, Grace L.;

Rosignol, Daniel P.; Steve, A. Regina; Billiar,

Timothy R.; Wang, Stewart C.

CORPORATE SOURCE: Dep. of Anesthesiology/Critical Care Medicine, Univ.

of Pittsburgh School of Medicine, Pittsburgh, PA, USA American Journal of Respiratory Cell and Molecular

Biology (1995), 12(4), 449-54 CODEN: AJRBEL; ISSN: 1044-1549

PUBLISHER: American Lung Association

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

AUTHOR (S):

Lipopolysaccharide (LPS)-binding protein (LBP) binds with high affinity to LPS, and the LBP-LPS complex enhances cellular inflammatory responses to LPS. Although it is present in normal serum, LBP is also induced as part of the acute phase response. Synthesis of LBP is thought to be limited to the liver, but we have recently reported significant extrahepatic (including pulmonary) LBP mRNA expression in in vivo rat models of sepsis and inflammation. In the present study, we tested the hypothesis that a cellular source of pulmonary LBP in the rat may be vascular smooth muscle, by exposing cultured rat pulmonary artery smooth muscle cells (RPASMC) to cytokines and LPS. Treatment of RPASMC for 4 and 24 h with a combination of tumor necrosis factor .alpha., interleukin 1.beta. (IL-1.beta.), interferon .gamma., and LPS resulted in significant LBP mRNA expression. Of this mixt., IL-1.beta. alone was sufficient to induce LBP mRNA expression in both a time- and dose-dependent manner. The effects of IL-1.beta. on LBP mRNA expression were significantly antagonized by IL-1 receptor antagonist protein. Furthermore, supernatants from RPASMC treated with IL-1.beta. enhanced the binding of [1251]ASD-LPS by the macrophage cell line RAW 264.7, indicative of LBP bioactivity. We conclude that pulmonary artery smooth muscle cells stimulated with IL-1.beta. produce a transcript for LBP or a homologous product in vitro. Local prodn. of LBP could play an important role in the pulmonary response to inflammation and sepsis.

ANSWER 10 OF 17 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1996:45276 BIOSIS PREV199698617411 DOCUMENT NUMBER:

LPS induces interleukin (IL)-1 converting enzyme (ICE) in TITLE:

monocytic and endothelial cells, as assessed by a novel ice

bioassay using an artificial fluorogenic substrate. Pfeil, D.; Belka, C.; Brach, M. A.; Kirschning, C.; Lamping, N.; Reuter, D.; Herrmann, F.; Schumann, R. R.

Max-Delbrueck-Centrum Molekulare Med. und Abteilung Med. CORPORATE SOURCE: Onkol. Angewandte Molekularbiol., Humboldt-Univ. zu Berlin,

Virchow-Klinikum, Robert-Roessle-Klin., D-13122 Berlin

Germany

SOURCE: Onkologie, (1995) Vol. 18, No. SUPPL. 2, pp. 125.

Meeting Info.: Annual Congress of the German and Austrian Societies for Hematology and Oncology Hamburg, Germany

October 8-11, 1995 ISSN: 0378-584X.

DOCUMENT TYPE: Conference LANGUAGE: English

ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1994:676191 CAPLUS

DOCUMENT NUMBER: 121:276191 TITLE:

ricidal/permeability-increasin Use of bac (BPI) and Tipopolysaccharide-binding protein (LBP) levels and ratios thereof in diagnosis of inflammatory

disorder

INVENTOR (S):

Scott, Randal W.; Fisher, Charles J.; Marra, Marian

N.; Opal, Steven M.

PATENT ASSIGNEE(S):

Incyte Pharmaceuticals, Inc., USA

SOURCE:

PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT NO.

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PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE

WO 9421280

A1 19940929 WO 1994-US3086 19940321

W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ,

PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,

BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG AU 1994-65227 AU 9465227 A1 19941011 19940321 PRIORITY APPLN. INFO.: US 1993-34294 19930322

WO 1994-US3086 19940321 Methods are provided for diagnosing and predicting the outcome of an AB inflammatory disorder in a subject, which comprise obtaining a bodily fluid sample from the patient, quant. detg. the amt. of BPI in the sample, comparing the amt. of BPI present in the sample with levels of BPI in samples obtained from normal subjects and with levels of BPI in samples obtained from individuals suffering from an inflammatory disorder in order to diagnose and predict the outcome of an inflammatory disorder in the subject. Alternatively, the amt. of BPI and LBP is detd. in the sample, the ratio of BPI to LBP is calcd., and the ratio is compared with those obtained from normal subjects and with those from individuals suffering from an inflammatory disorder in order to diagnose and predict the outcome of the inflammatory disease in the subject. The amts. are detd. by ELISA. BPI levels are elevated in vivo in response to endotoxin challenge and as a result of inflammatory disease. The elevated levels include free BPI and cell surface-bound BPI. BPI could be detected as early as 30 min following LPS treatment, and release was maximal at 2 h.

ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:555240 CAPLUS

DOCUMENT NUMBER: 121:155240

TITLE: Mode of action of anti-lipopolysaccharide-binding

protein antibodies for prevention of endotoxemic shock

in mice

AUTHOR(S): Gallay, P.; Heumann, D.; Le Roy, D.; Barras, C.;

Glauser, M. P.

Dep. Internal Med., Div. Infectious Diseases,

Lausanne, CHUV-1011, Switz.

Proceedings of the National Academy of Sciences of the SOURCE:

United States of America (1994), 91(17), 7922-6

CODEN: PNASA6; ISSN: 0027-8424

DOCUMENT TYPE: Journal LANGUAGE: English

CORPORATE SOURCE:

Lipopolysaccharide (LPS)-binding protein (LBP) has been shown to regulate the response of monocytes to LPS in vitro. In a previous study, polyclonal anti-LBP IgGs were found to protect D-galactosamine-sensitized mice against a lethal endotoxemic shock induced by a low challenge of LPS or lipid A when administered simultaneously with endotoxin. In the present study the authors investigated the mode of action of these anti-LBP IgGs. In vitro, the authors demonstrated that they interfere with LPS binding to monocytes or polymorphonuclear cells in different ways: by the mere prevention of binding of LPS to LBP thus prevention the binding of LPS to CD14, or by reacting with LPS-LBP complexes thus mediating their binding to complement or Fc receptors on monocytes and on polymorphonuclear cells. In vivo, the authors demonstrated that anti-LBP IgGs afforded protection against lethal endotoxemic shock by one of two mechanisms. First, LBP blockade by pretreatment with anti-LBP IgG allowed protection against a low dose of LPS (100 ng). This protection occurred despite LPS levels in blood states to those in control mice bein the absence of detectable tumor necrosis factor (TNF). This demonstrated that anti-LBP IgG could block the LBP-mediated TNF release upon LPS challenge. In contrast, anti-LBP IgG did not afford protection in mice not sensitized with D-galactosamine and challenged with high-dose LPS (1 mg), confirming that LPS at high concn. could stimulate cells independently of the LBP pathway. Second, anti-LBP treatment administered simultaneously with LPS challenge protected mice against both low and high doses of LPS. Unlike after pretreatment with anti-LBP IgG, this protection was accompanied by a decrease of circulating LPS, suggesting that anti-LBP IgG in these conditions facilitated clearance of LPS probably by clearing LPS-LBP complexes. These data and the fact that LBP binds to all LPS through lipid A suggest that antibody directed to LBP could be a candidate for therapeutic strategies in endotoxemic shock.

ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:295549 CAPLUS

DOCUMENT NUMBER: 120:295549

TITLE: Lipopolysaccharide (LPS)-binding protein and soluble

CD14 function as accessory molecules for LPS-induced changes in endothelial barrier function, in vitro Goldblum, Simeon E.; Brann, Terrence W.; Ding, Xueda;

Pugin, Jerome; Tobias, Peter S.

CORPORATE SOURCE: Div. Infect. Dis., Veterans Aff., Baltimore, MD,

21201, USA

SOURCE: Journal of Clinical Investigation (1994), 93(2),

692-702

CODEN: JCINAO; ISSN: 0021-9738

DOCUMENT TYPE: Journal LANGUAGE: English

AUTHOR (S):

Bacterial LPS induces endothelial cell (EC) injury both in vivo and in vitro. The authors studied the effect of Escherichia coli 0111:B4 LPS on movement of 14C-BSA across bovine pulmonary artery EC monolayers. In the presence of serum, a 6-h LPS exposure augmented (P < 0.001) transendothelial 14C-BSA flux compared with the media control at concns. .gtoreq. 0.5 ng/mL, and LPS (10 ng/mL) exposures of .gtoreq. 2-h increased (P < 0.005) the flux. In the absence of serum, LPS concns. of up to 10 .mu.g/mL failed to increase 14C-BSA flux at 6 h. The addn. of 10% serum increased EC sensitivity to the LPS stimulus by > 10,000-fold. LPS (10 ng/mL, 6 h) failed to increase 14C-BSA flux at serum concns. < 0.5%, and max. LPS-induced increments could be generated in the presence of .gtoreq. 2.5%. LPS-binding protein (LBP) and sol. CD14 (sCD14) could each satisfy this serum requirement; either anti-LBP or anti-CD14 antibody each totally blocked (P <0.00005) the LPS-induced changes in endothelial barrier function. LPS-LBP had a more rapid onset than did LPS-sCD14. The LPS effect in the presence of both LBP and sCD14 exceeded the effect in the presence of either protein alone. These data suggest that LBP and sCD14 each independently functions as an accessory mol. for LPS presentation to the non-CD14-bearing endothelial surface. However, in the presence of serum both mols. are required.

ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:213905 CAPLUS

DOCUMENT NUMBER: 120:213905

TITLE: Lipopolysaccharide binding protein: its role and therapeutic potential in inflammation and sepsis AUTHOR (S):

Schumann, Ralf R.; Lamping, N.; Kirschning, C.; Knopf,

H. P.; Hoess, A.; Herrmann, F.

CORPORATE SOURCE: Max-Delbrueck-Cent. Mol. Med., Berlin, 13122, Germany SOURCE: Biochemical Society Transactions (1994), 22(1), 80-2

CODEN: BCSTB5; ISSN: 0300-5127

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

A review, with 25 refs., discussing lipopolysaccharide-binding protein, the LBP promoter, the LPS-binding site of LBP, the LPS receptor CD14, and therapeutic intervention strategies in gram-neg. sepsis.

ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:594644 CAPLUS

DOCUMENT NUMBER: 121:194644

TITLE: Molecular mechanisms and therapeutical intervention strategies of the sepsis syndrome: Induction pattern and function of lipopolysaccharide binding betein Schumann, Ralf R.; Kirschning, C.; Lamping, N.; Knopf,

H. -P.; Aberle, H.; Herrmann, F.

CORPORATE SOURCE: Max-Delbruck-Centrum fur Mol. Med. (MDC), Berlin,

13122, Germany

SOURCE: International Congress Series (1993), 1042 (BIOLOGY OF

VITRONECT), 249-56

CODEN: EXMDA4; ISSN: 0531-5131

Journal; General Review

LANGUAGE: English

DOCUMENT TYPE:

A review with 28 refs. Lipopolysaccharide (LPS) or endotoxin, a part of the outer membrane of gram-neg. bacteria, initiates a cascade of events in the host organism when released into the bloodstream. Moderate activation of immune cells by LPS can be beneficial, in an uncontrolled fashion, however, it often leads to severe malfunctions of the organism. Hypotension, fever, multi-organ-failure, disseminated intravascular coagulation and the full gram-neg. shock syndrome can be induced by the entry of even small amts. of LPS into the bloodstream. The sepsis syndrome has a high mortality rate and as to now no therapeutical intervention strategy has been established. With the recent discovery of binding proteins and receptors for LPS, insight in the endotoxin recognition and cell activation processes has been gained over the last years. Here the LPS binding protein LBP is discussed, focussing on its synthesis in the liver and the anal. of the promoter region of the gene. Understanding of the complex mechanism of endotoxin recognition might ultimately lead to therapeutical approaches to stop the chain reaction initiated by LPS, that leads to the shock syndrome.

L4 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:515238 CAPLUS

DOCUMENT NUMBER: 119:115238

TITLE: Lipolysaccharide binding protein and CD14 interaction induces tumor necrosis factor, alpha generation and

induces tumor necrosis factor-.alpha. generation and neutrophil sequestration in lungs after intratracheal

endotoxin

AUTHOR(S): Ishii, Yoshiki; Wang, Yan; Haziot, Alain; Del Vecchio,

Peter J.; Goyert, Sanna M.; Malik, Asrar B.

CORPORATE SOURCE: Dep. Physiol. Cell Biol., Albany Med. Coll., Albany,

NY, 12208, USA

SOURCE: Circulation Research (1993), 73(1), 15-23

CODEN: CIRUAL; ISSN: 0009-7330

DOCUMENT TYPE: Journal LANGUAGE: English

It has been proposed that lipopolysaccharide (LPS) bound to the 60-kD LPS binding protein (LBP) forms an LPS/LBP complex that, in turn, binds to the CD14 receptor on monocytes/macrophages and stimulates the release of cytokines. The role was examd. of LBP and CD14 in tumor necrosis factor-.alpha. (TNF-.alpha.) prodn. and neutrophil (PMN) sequestration in lungs induced by intratracheal instillation of LPS using rabbit lungs perfused at const. flow with lactated Ringer-albumin soln. LPS alone (Salmonella minnesota, wild type; 20 ng) or in the presence of LBP (500 ng) was injected intratracheally. In some expts., human PMNs (5 .times. 107) were added to the perfusate after a 2-h period of perfusion. Samples of lung perfusate were collected every 30 min for 180 min when bronchoalveolar lavage was also performed. TNF-.alpha. concns. in the perfusate and bronchoalveolar lavage fluid were detd. by use of a bioassay with L-929 fibroblasts, and PMN accumulation in lungs was detd. by myeloperoxidase assay of lung homogenates. LPS alone did not increase TNF-.alpha. prodn. or lung PMN accumulation, whereas the LPS/LBP complex increased TNF-.alpha. concn. in perfusate 2-fold and PMN accumulation 2-fold compared with the effect of LPS alone. Intratracheal instillation and anti-CD14 monoclonal antibody MY4 (40 .mu.g) with the LPS/LBP complex prevented TNF-.alpha. release and PMN sequestration, whereas an isotype-matched control monoclonal antibody was ineffective. Therefore, LBP in the airspace enhances the LPS effect on TNF-.alpha. prodn. via a CD14-dependent pathway, and as a result, CD14 activation can contribute to lung PMN sequestration. Airspace accumulation of LBP secondary to increased vascular and airway epithelial injury may play a crit. role in development of acute lung injury by promoting TNF-.alpha. prodn. via a CD14-dependent mechanism.

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ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS SSION NUMBER: 1994:7262 CAPLUS
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ACCESSION NUMBER:

DOCUMENT NUMBER: 120:72623

TITLE: Study of the utility of lipopolysaccharide-binding

protein for diagnosis and treatment of endotoxemia

AUTHOR(S): Ulevitch, R. J.

CORPORATE SOURCE: Scripps Res. Inst., La Jolla, CA, USA

SOURCE: Report (1992), Order No. AD-A259971, 12 pp. Avail.:

NTIS

From: Gov. Rep. Announce. Index (U. S.) 1993, 93(10),

Abstr. No. 329,747

DOCUMENT TYPE: Report LANGUAGE: English

The interactions of LPS-binding protein (LBP) were defined with various isolates of bacterial endotoxin (lipopolysaccharide, LPS) or lipid A partial structures. The authors' studies include direct binding measurements and evaluation of the biol. activity of LPS-LBP complexes. These structure/function studies demonstrate the utility of LBP as a detecting reagent for an assay to measure LPS in biol. fluids. To facilitate this, the authors have also developed methods to prep. large quantities of recombinant LBP and have produced monoclonal antibodies to human LBP. All of the requisite reagents and basic information are available to facilitate development of a clin. useful assay for LPS. major limitation in this effort is the termination of funding of this project.

=> d his

(FILE 'HOME' ENTERED AT 12:01:19 ON 08 APR 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 12:01:40 ON 08 APR 2003

L155506 S SEPTICEMIA

2979 S LIPOPOLYSACCHARIDE BINDING PROTEIN L2

L319 S L1 (P) L2

17 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)

=> s 14 (p) treat?

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH

FIELD CODE - 'AND' OPERATOR ASSUMED 'L28 (P) TREAT?'

3 L4 (P) TREAT?

=> d 15 1-3 ibib abs

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS L5 ACCESSION NUMBER: 1998:59315 CAPLUS

DOCUMENT NUMBER: 128:106451

TITLE: Nonoral preparations containing phospholipids, and

prevention and treatment of septicemia with them

INVENTOR(S): Kanagi, Yoshiaki; Ono, Yoichi; Mori, Masato; Akiyama,

Tadashi

PATENT ASSIGNEE(S): Nippon Seiyaku K. K., Japan SOURCE:

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE --------------------JP 10017476 A2 19980120 JP 1996-188173 19960628 RITY APPLN. INFO.: JP 1996-188173 19960628
The prepns. for ***septicemia*** contain phospholipids suspended PRIORITY APPLN. INFO.: AB therein, and the phospholipids mobilize lipoproteins when i.v. administered, thus inactivating endotoxins and/or endotoxin-***lipopolysaccharide*** - ***binding*** ***protein*** complexes. ***Septicemia*** is prevented or ***treated*** by i.v. administration of the prepns. Thus, yolk lecithin was homogenized with an aq. glycerin soln. to give a suspension. Escherichia coli LPS was injected to rats on 4th day of 5-day consecutive i.v. administration of

the suspension to cause no death of he animals. ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1995:982430 CAPLUS DOCUMENT NUMBER: 124:764 TITLE: Recombinant preparation of polypeptides of human lipopolysaccharide binding protein and use of the polypeptides for sepsis treatment INVENTOR(S): Han, Jiahuai; Ulevitch, Richard J.; Tobias, Peter S. PATENT ASSIGNEE(S): Scripps Research Institute, USA SOURCE: PCT Int. Appl., 63 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE -----------WO 9525117 A1 19950921 WO 1995-US3384 19950315 W: AU, CA, FI, JP, NO RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE US 5837810 Α 19981117 US 1994-215089 19940315 AU 9521868 **A**1 19951003 AU 1995-21868 19950315 PRIORITY APPLN. INFO.: US 1994-215089 19940315 WO 1995-US3384 19950315 A polypeptide fragment of lipopolysaccharide (LPS)-binding protein (LBP) AB that inhibit the binding of LPS released by gram-neg. bacteria into the CD14 receptor is provided. A method of ameliorating symptoms of sepsis in a subject by administration of an LBP polypeptide of the invention, or administration of antibody to LBP polypeptide, or anti-idiotype antibody is also disclosed. L5ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1994:72623 CAPLUS DOCUMENT NUMBER: 120:72623 TITLE: Study of the utility of lipopolysaccharide-binding protein for diagnosis and treatment of endotoxemia AUTHOR(S): Ulevitch, R. J. CORPORATE SOURCE: Scripps Res. Inst., La Jolla, CA, USA SOURCE: Report (1992), Order No. AD-A259971, 12 pp. Avail.: NTIS From: Gov. Rep. Announce. Index (U. S.) 1993, 93(10), Abstr. No. 329,747 DOCUMENT TYPE: Report LANGUAGE: English The interactions of LPS-binding protein (LBP) were defined with various isolates of bacterial endotoxin (lipopolysaccharide, LPS) or lipid A partial structures. The authors' studies include direct binding measurements and evaluation of the biol. activity of LPS-LBP complexes. These structure/function studies demonstrate the utility of LBP as a detecting reagent for an assay to measure LPS in biol. fluids. To facilitate this, the authors have also developed methods to prep. large quantities of recombinant LBP and have produced monoclonal antibodies to human LBP. All of the requisite reagents and basic information are available to facilitate development of a clin. useful assay for LPS. major limitation in this effort is the termination of funding of this project. => d his (FILE 'HOME' ENTERED AT 12:01:19 ON 08 APR 2003) FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 12:01:40 ON 08 APR 2003 L155506 S SEPTICEMIA 2979 S LIPOPOLYSACCHARIDE BINDING PROTEIN L_2 L3 19 S L1 (P) L2

17 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)

3 S L4 (P) TREAT?

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=> s bactercidal/permeability increasing protein
 MISSING OPERATOR
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 MISSING OPERATOR
 => s bactericidal/permeability (w) increasing (w) protein
 'PERMEABILITY' IS NOT A VALID FIELD CODE
             0 BACTERICIDAL/PERMEABILITY (W) INCREASING (W) PROTEIN
=> s bactericidal (w) permeability (w) increasing (w) protein
          2136 BACTERICIDAL (W) PERMEABILITY (W) INCREASING (W) PROTEIN
 => s (limulus anti-lipopolysaccharide factor) or lalf
            72 (LIMULUS ANTI-LIPOPOLYSACCHARIDE FACTOR) OR LALF
=> s 12 (p) (17 or 18)
           317 L2 (P) (L7 OR L8)
=> s 19 (p) hybrid
             6 L9 (P) HYBRID
=> duplicate remove 110
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L10
L11
              2 DUPLICATE REMOVE L10 (4 DUPLICATES REMOVED)
=> d l11 1-2 ibib abs
L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER:
                        1995:492022 CAPLUS
DOCUMENT NUMBER:
                        122:232671
TITLE:
                        Lipopolysaccharide binding protein derivatives, their
                        manufacture with recombinant cells, and their use in
                        treatment of Gram-neg. bacterial infections
INVENTOR(S):
                        Gazzano-Santoro, Helene; Theofan, Georgia; Trown,
                        Patrick W.
PATENT ASSIGNEE(S):
                        Xoma Corp., USA
SOURCE:
                        PCT Int. Appl., 108 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                 KIND DATE
     PATENT NO.
                                        APPLICATION NO. DATE
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                                         -----
     WO 9500641 A1 19950105
                                        WO 1994-US6931 19940617
        W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU,
            JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO,
            RU, SD, SE, SK, UA, UZ, VN
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
            BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
     AU 9471756
                     A1 19950117
                                       AU 1994-71756 19940617
PRIORITY APPLN. INFO.:
                                      US 1993-79510
                                                     A 19930617
                                      WO 1994-US6931 W 19940617
    Disclosed are novel biol. active
AB
                                      ***lipopolysaccharide***
      (LBP) derivs. including LBP deriv.
      ***hybrid*** proteins which are characterized by the ability to bind to
    and neutralize LPS and which lack the CD14-mediated immunostimulatory
    properties of holo-LBP. CDNA's for human LBP and for (1-197)LBP, called
    LBP25 were cloned. Genes for LBP25, for BPI23 [where BPI refers to human
      ***bactericidal*** / ***permeability*** - ***increasing***
      ***protein*** and BPI23 to (1-199)BPI], and ***hybrid***
    proteins were constructed and expressed in CHO cells. Lipid A binding
    activity and pharmacokinetics of selected proteins were examd. LBP25,
```

unlike LBP, did not potentiate release of tumor necrosis factor by peripheral blood mononuclear and did not mediate LPS-stipleted tissue factor prodn. LBP25 completely inhibited LPS induction of endothelial cell adhesiveness for neutrophils. Addnl., LBP25 was unable to mediate CD14-dependent enhanced binding of bacteria to monocytes.

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L11 ANSWER 2 OF 2
                       MEDLINE
                                                         DUPLICATE 1
ACCESSION NUMBER:
                    94179366
                                 MEDLINE
                     94179366 PubMed ID: 8132678
DOCUMENT NUMBER:
 TITLE:
                    Complete cDNA encoding human phospholipid transfer protein
                     from human endothelial cells.
AUTHOR:
                    Day J R; Albers J J; Lofton-Day C E; Gilbert T L; Ching A
                     F; Grant F J; O'Hara P J; Marcovina S M; Adolphson J L
CORPORATE SOURCE:
                    Department of Medicine, University of Washington, Seattle
                     98103.
CONTRACT NUMBER:
                    HL 30086 (NHLBI)
SOURCE:
                    JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Mar 25) 269 (12)
                    Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY:
                    United States
DOCUMENT TYPE:
                    Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:
                    English
FILE SEGMENT:
                    Priority Journals
OTHER SOURCE:
                    GENBANK-L26232
ENTRY MONTH:
                    199404
ENTRY DATE:
                    Entered STN: 19940428
                    Last Updated on STN: 19940428
                    Entered Medline: 19940421
     Phospholipid transfer protein, with an apparent molecular mass of 81 kDa,
AB
     was purified from human plasma. The NH2-terminal amino acid sequence of a
     51-kDa proteolytic fragment obtained from phospholipid transfer protein
     allowed degenerate primers to be designed for polymerase chain reaction
     and the eventual isolation of a full-length cDNA from a human endothelial
     cDNA library. The cDNA is 1,750 base pairs in length and contains an open
     reading frame of 1,518 nucleotides encoding a leader of 17 amino acids and
     a mature protein of 476 residues. Northern blot analysis shows a single
     mRNA transcript of approximately 1.8 kilobases with a wide tissue
     distribution. The gene was mapped to chromosome 20 using a human/rodent
                    ***hybrid***
     somatic cell
                                  mapping panel. Phospholipid transfer protein
     was found to be homologous to human cholesteryl ester transfer protein,
             ***lipopolysaccharide*** - ***binding***
                                                             ***protein***
     and human neutrophil ***bactericidal*** ***permeability***
       ***increasing***
                            ***protein*** (20, 24, and 26% identity,
     respectively).
=> d his
     (FILE 'HOME' ENTERED AT 12:01:19 ON 08 APR 2003)
     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 12:01:40 ON
     08 APR 2003
L1
          55506 S SEPTICEMIA
L2
           2979 S LIPOPOLYSACCHARIDE BINDING PROTEIN
L3
             19 S L1 (P) L2
L4
             17 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)
L5
              3 S L4 (P) TREAT?
L6
              O S BACTERICIDAL/PERMEABILITY (W) INCREASING (W) PROTEIN
L7
           2136 S BACTERICIDAL (W) PERMEABILITY (W) INCREASING (W) PROTEIN
             72 S (LIMULUS ANTI-LIPOPOLYSACCHARIDE FACTOR) OR LALF
L8
L9
            317 S L2 (P) (L7 OR L8)
T.10
              6 S L9 (P) HYBRID
T.11
              2 DUPLICATE REMOVE L10 (4 DUPLICATES REMOVED)
=> s 13 (p) mutant
L12
             0 L3 (P) MUTANT
=> d his
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FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 12:01:40 ON

(FILE 'HOME' ENTERED AT 12:01:19 ON 08 APR 2003)

08 APR 2003
L1 55506 S SEPTICEMIA
L2 2979 S LIPOPOLYSACCHARID BINDING PROTEIN
L3 19 S L1 (P) L2
L4 17 DUPLICATE REMOVE L3 (2 DUPLICATES REMOVED)
L5 3 S L4 (P) TREAT?
0 S BACTERICIDAL/PERMEABILITY (W) INCREASING (W) PROTEIN
2136 S BACTERICIDAL (W) PERMEABILITY (W) INCREASING (W) PROTEIN
72 S (LIMULUS ANTI-LIPOPOLYSACCHARIDE FACTOR) OR LALF
19 317 S L2 (P) (L7 OR L8)
L10 6 S L9 (P) HYBRID
L11 2 DUPLICATE REMOVE L10 (4 DUPLICATES REMOVED)
L12 0 S L3 (P) MUTANT
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COST IN U.S. DOLLARS SINCE FILE TOTAL
FULL ESTIMATED COST ENTRY SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL
CA SUBSCRIBER PRICE ENTRY SESSION
-11.72 -11.72

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